ISASC

NTERNATIONAL SOCIETY OF ANTIQUE SCALE COLLECTOR

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Utz Schmidt

Hello Friends !

Here is another 'scale crazy' collector.

Last Spring I was in Hastings for five weeks improving my school English. We - Ingrid and our children Silke 11 and Lars 10 - stayed with a nice English family, and in the meantime Nils 3 years old was with his grand-parents. In the afternoons we made little trips in the local area and also visited antique shops. They were goldmines for scales, so that nearly every day I brought another scale back, and that's the reason for my nickname 'scale crazy Utz'. By the way, I found 22 scales.

During these searches I heard from a man who makes beautiful drawings of scales - and so I got to know Michael Crawforth. I am a lucky fellow that I decided one day to collect scales and found in this way such a real friend.

When I decided to become a member of ISASC I thought it would not be difficult to write a newsletter. But as I am mainly interested in the technical side of scales, I found all my knowledge was covered in the first letters and so I saw the only way to escape this difficulty was to write mainly about German things. At this point I must say that part of my knowledge about apothecarie's weights comes from another German scale collector in Köln who is only interested in gold scales and nesting weights. He is not interested in becoming a member of ISASC, but if anyone has questions about these things you can write to me and I will acquaint you with him.

I hope that some of you will be interested in the following two articles. When I began I was so enthusiastic that I intended to write two more articles. But I saw the letter would become too extensive. My next letter will perhaps deal with German gold scales.

With kind regards I remain,

Your

Utz Schmidt

1. BE CAREFUL WITH NESTING WEIGHTS.

Looking through our members list, nearly every one of us collects not only scales but also likes to have genuine weights. Because of their beauty the demand for nesting weights is great, but as there are so few of them, some clever boys thought 'let's make new ones'.

Reading an article concerning reproduction nesting weights*, I found out that the best set of my collection is a falsification and so I thought it would be a good idea to make known the main characteristics of reproduction weights, so that none of us will be disappointed with new acquisitions.

* English	nesting weights
German	Einsatzgewicht
French	pile
Dutch	Sluitgewicht

Until the end of the 18th century, all nesting weights came from Nürnberg. There are only a few exceptions in the later times. In the 16th, 17th and 18th centuries Spain and Portugal were the main customers for Nürnberg weights, outside Germany's direct European neighbours. It is very easy to see this today. Nearly all weights for the Spanish market have on the left side of the lid a small 'S' and those for Portugal a small 'P'.

a. PATINA

On original old weights you will see that the inner cups have mostly a lighter patina than the outer cup, and the lid on the contrary, is a little darker. The counterfeits are the same colour all over. Very often you will find they have an unpleasant spotted yellow-green colour (when made - but it is also possible to see ones that have been cleaned). Because they were made in large quantities it was necessary to have an economical way to artificially patinate them. This was done by using acid, and so you find the same colour on all the parts. Sometimes you will also find a nearly black patina.

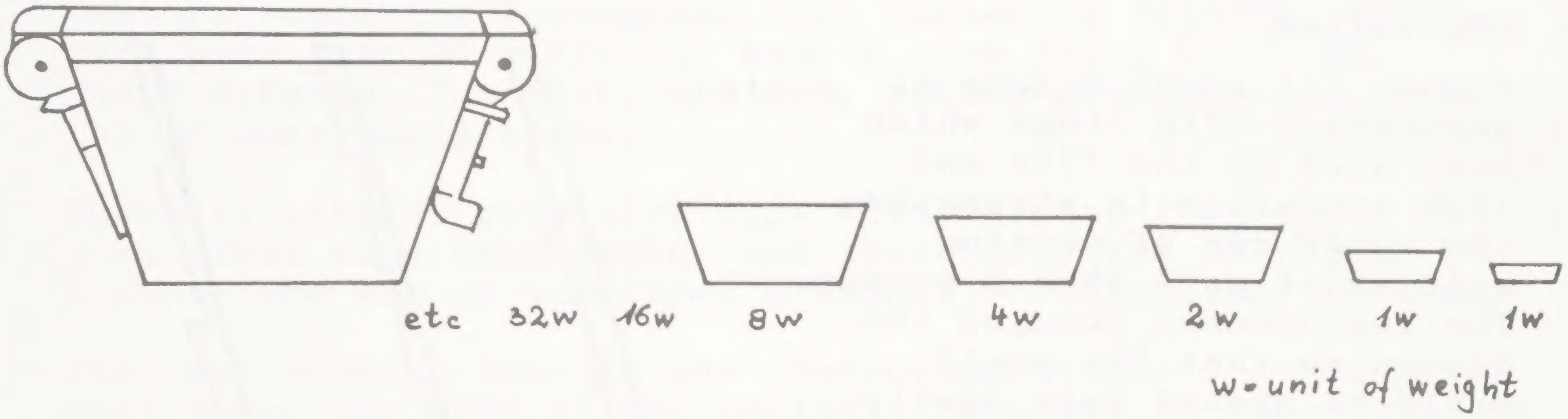
b. VERIFICATION MARKS

Mainly, the Spanish reproductions show a lot of unarranged Roman capital letters on the lid. They were supposed to be verification marks. Often they bear dates, mostly between 1750 and 1760. Sometimes they are stamped on the inner bottom of the outer cup together with other fancy signs. On the lid there are sometimes Roman figures about 100 years later than the original date. All these letters, numbers, figures and signs show a modern type style, and that's one of their defects. The other is their arrangement. An adjuster has always been a pedant (it is necessary in his profession). He would have made his marks one after the other in a nice succession, and would not make such an unsightly chaos.

Sometimes the falsifiers made another mistake. For economy the reproduced marks were stamped during the production of the lid and not on the completed weight. As a result it can be that parts of the signs lay under the fastener or under other parts.

There is also a third defect. On the counterfeits, the numerals or signs themselves are indented. On genuine weights the signs are stamped so that the number or sign is level with the surrounding parts, and only a small peripheral line is indented.

c. EQUAL WEIGHTS



It is very easy to prove the authenticity of the inset cups by weighing. You need only an equal arm scale, and if some inner cups are missing, you will also need some equivalent weights.

The outer cup, complete with its lid, is a weight and it is equal in weight to all of the inner cups. Usually you will find the set has 9 inset cups, but here begins the first of the difficulties with the true sets - they are very seldom complete. The smallest cups are usually missing. Because buyers prefer complete sets, the smallest ones are often replacements, and you must recognise them. There are three rules:

1. The smallest weight, mostly about the size of a bean, and solid, has the same weights as the following cup.
2. Each bigger cup has twice the weight of the next smaller cup, which fits into it.
3. Each cup is equal in weight to all the cups which fit inside it.

If you see a complete set be careful, because it could be a reproduction.

d. FITTING OF NESTING WEIGHTS

An old rule of the weight casters from Nürnberg says: 'The inset cups shall not move or rattle if the lid is closed'. The reproduction ones rattle!

e. ADJUSTMENT MARKS

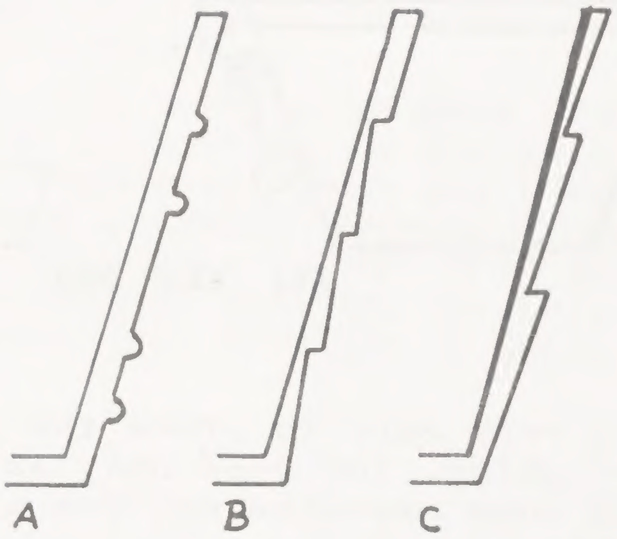
True weights normally have a bottom which is thicker than the sides. This was necessary so that material could be filed away until the proper weight was reached. And so the traces of a file may be a sign of authenticity.

f. MATERIAL

Nesting weights from Nürnberg were cast in brass and other copper containing alloys. Soft materials like tin were never used because they wear away during use, so that after a short time they would be too light. Also other light alloys are a sign of reproduction.

g. DECORATION

Figure 'A' shows a form of decoration with rings which were used in the 17th and 18th centuries to strengthen the outer cup of nesting weights of more than 4 pounds. The reproducers changed the design so that the mould could be opened more easily. They prefer the type shown in fig. 'B', but the one in fig. 'C' was also used.



h. COMPONENTS

Genuine outer cups were composed of 6 pieces, but the reproductions are not. To avoid using complicated moulds some pieces were left off, so that there are mainly 3 pieces; cup, lid and fastener. You find also that there are not tooling marks. You have to look very carfully because the smallest details like rivets and separating lines are cast integrally.

We are lucky that perfection cannot be reached in reproducing the brass, and so the colour points to the authenticity.

i. ELEPHANTS

If the decorations of the outer cup are too nice - be careful! One Spanish type has on the lid two elephants which support the handle.

k. HISTORY

And now a little bit of history about the reproductions, their periods and their main signs.

Until the early 1960s the prices of nesting weights were not high enough to make reproductions profitable. Towards 1964/65 you found the first 'tin-weights' on the market. They came mainly from Austria. Their defects: No adjustment marks, bad fitting, no equal weights, light alloy metal. But they were very carefully made, also the inset cups were turned. Mostly they were complete (as were all reproductions). On the left side of the fastener you often find a crown. The decoration was the type shown in figs. 'B' and 'C'.

The second series was the Spanish type of the 'Elephant-weights' which weighed 16 to 18 pounds, black patina and two elephants to support the handle.

Then followed the Portuguese type beginning 1969/70. There were more than 20 different models from 200 g to 20 kg. Their defects: Too nice, spotted, yellow-green patina, a lot of unarranged signs.

There is another primitive type with weights from 500 g to 3 kg. They came from Spain, and their defects: Only 3 or 4 cups, the set is complete, a simple untooled sand casting.

The last Spanish type is the 'Technical-weight'. It is the most dangerous type to the collector because it shows perfect reproduction. Their defects: No copper containing material, only 3 or 4 components.

2. MEDICAL AND APOTHECARIE'S WEIGHTS

Nürnberg had for hundreds of years, the Worlds monopoly for making nesting weights, sometimes erroneously named apothecarie's weights. However, they also cast weights for chemists. They had the form of a truncated pyramid, cast in brass. Their weights ranged from 1 pound to half a Skrupel. The grain weights were square plates with stamped Roman numerals. But there were also special 10, 20, 30 and 40 grain weights from a thicker brass sheet. They were sawn out and had 1, 2, 3 or 4 holes so that one could recognize them at the first glance.

There were similar grain weights in Köln (Cologne), Berlin, Mailand and in Holland. Apart from these, Holland had weights in the shape of the antique weight symbols for 1 Unze, 1/2 Unze, 2 Drachmen, 1 Drachme, 2 Skrupel, 1 Skrupel and 1 Obol, also sawn out. The weight of one pound was hemispherical with a knob, and its name was LIBRA MEDICINALIS.
See the sketches on the next page.

These weights were used in Germany until 1872 when the decimal system was adopted. They were the last witness of the ancient system for measures which had its roots in the Babylonian system.

In most of the German States the apothecarie's weights from Nürnberg were current. Their weight:

1 Pfund	357,567 g	= 12 Unzen
1 Unze	29,7972 g	= 8 Drachmen
1 Drachme	3,72465 g	= 3 Skrupel
1 Skrupel	1,24155 g	= 2 Oboli = 20 Gran
1 Gran	0,06204 g	

Weights for the medical pound in several European towns before the metrical system came.

Amsterdam	369,126 g	
Groningen	357,6 g	
Luzern	357,95 g	
Nürnberg	357,567 g	(or 357,854 g)
St. Petersburg	358,328 g	
Preußen Berlin	350,78 g	
Stockholm	356,437 g	
Trier	356,12 g	
Turin	307,37 g	
Warschau (Warsaw)	358,510 g	
Wien (Vienna)	420,009 g	

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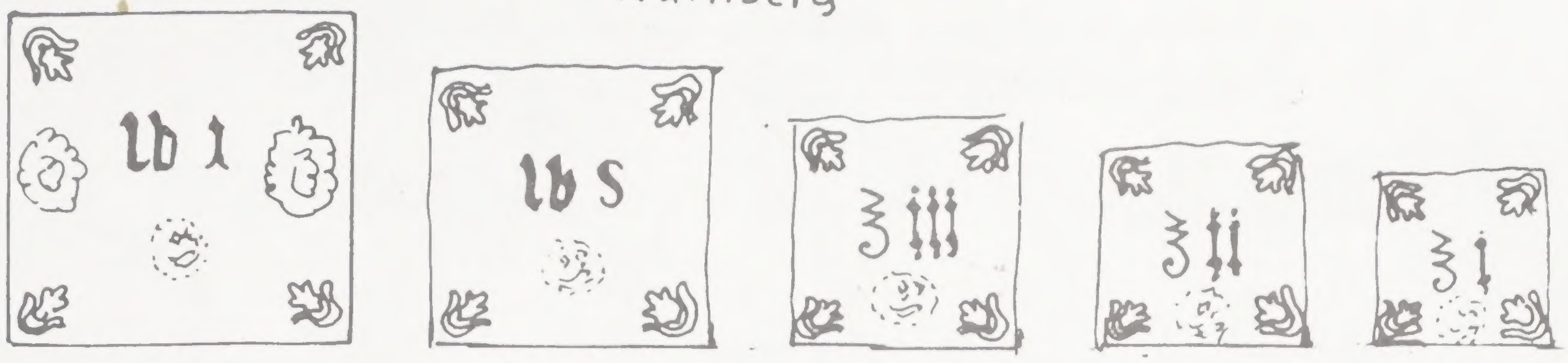
APOTHEKERGEWICHTE

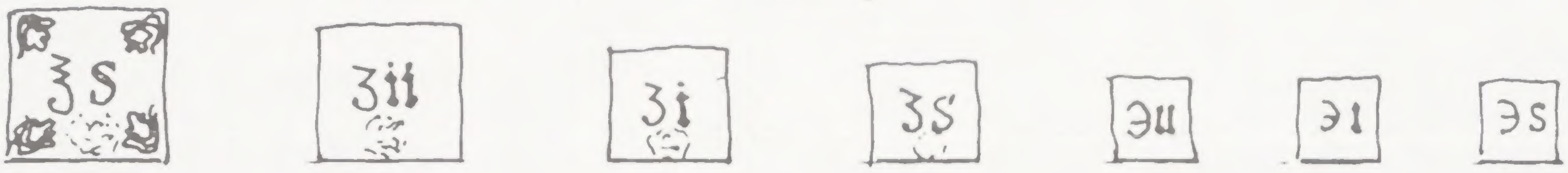
Apothecaries' weights

Nürnberg



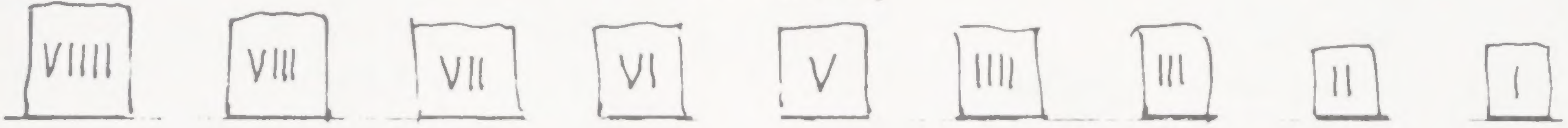
1 Pfund
½ Pfund
3 Unzen
2 Unzen
1 Unze

Nürnberg



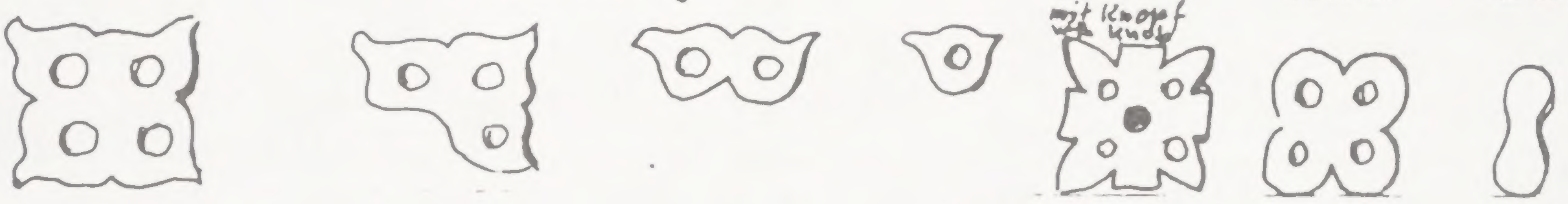
½ Unze
2 Drachmen
1 Drachme
½ Drachme
2 Skrupel
1 Skrupel
½ Skrupel

Nürnberg



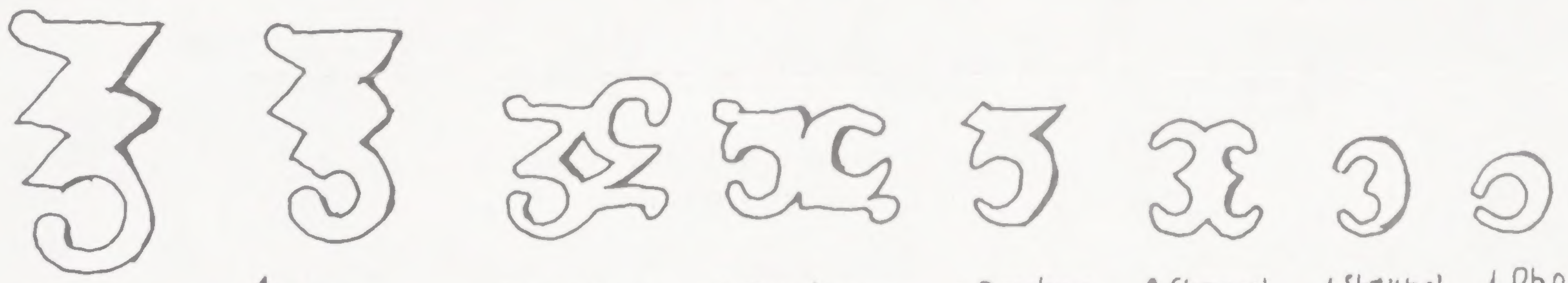
9 Gran
8 Gr.
7 Gr.
6 Gr.
5. Gr.
4 Gr.
3Gr.
2 Gr.
1 Gran

Nürnberg
Köln
mit Knopf
Berlin
Mailand



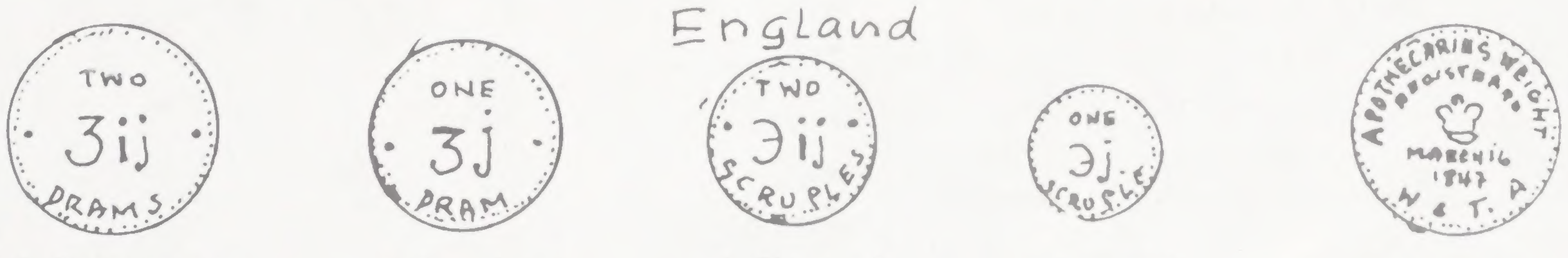
40 Gran
30 Gran
20 Gran
10 Gran
40 Gran
40 Gran
20 Gran

Holland

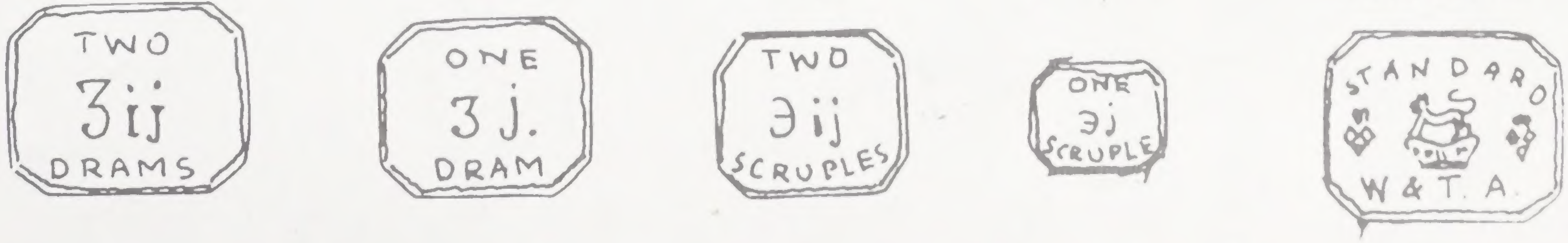


1 Unze
½ Unze
2 Drachmen
2 Drachmen
1 Drachme
2 Skrupel
1 Skrupel
= 2 Oboli
1 Obol

England



2 Drachmen
1 Drachme
2 Skrupel
1 Skrupel
Rückseite



W & T. A = W. & T. AVERY ~~LIVERPOOL~~ BIRMINGHAM

Roman weights of the classic period
Römische Gewichte der klassischen Zeit.

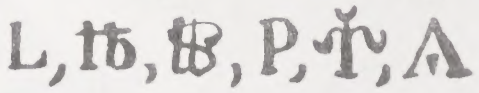
Name Bezeichnung	Pfund	Unzen	weight in g Gewicht in g
as (libra)	1	12	327,45
deunx	11/12	11	300,16
dextans (decunx)	5/6	10	272,88
dodrans	3/4	9	245,59
bes	2/3	8	218,30
septunx	7/12	7	191,02
semis	1/2	6	163,73
quincunx	5/12	5	136,44
triens	1/3	4	109,15
quadrans (teruncius)	1/4	3	81,86
sextans	1/6	2	54,58
sescuncia	1/8	1 1/2	40,93
uncia	1/12	1	27,288
semuncia	1/24	1/2	13,644
binae sextulae (duella)	1/36	1/3	9,096
sicilicus	1/48	1/4	6,822
sextula	1/72	1/6	4,548
dimidia sextula	1/144	1/12	2,274
scripulum oder scripulum o. scriptulum	1/288	1/24	1,137
obolus	1/2 Scripulum	1/48	0,568
siliqua	1/3 obolus	1/144	0,189

In ancient Rome, after Agricola, the medical weights were divided in the following way:

Nach Agricola war das Medizinal-Gewicht im antiken Rom wie folgt unterteilt:

1 Mina = 1 1/3 Libra, 1 Libra = 12 Unciae, 1 Uncia = 8 Drachmae,
1 Drachma = 3 Scripulii, 1 Scripulus = 2 Oboli, 1 Obolus = 2 Semioboli,
1 Semiobolus = =1 1/2 Siliquae, 1 Siliqua = 4 Grani.

Symbol of weight
Gewichtssymbole:

	Grecian Griechisch	Roman Römisch
Libra, pondo, as, monas	Λ	
Ouggia, uncia	ξ	℥
Drachme, drachma, denarius	ʒ	ʒ, Z
Scripulum		℈
Obolos,	C	℈s
Semis = 1/2		S im 17. u. 18. Jhdt. century auch β also